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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. - 10. (Canceled)

11. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

a fixed structure comprising two spaced apart guides symmetrically positioned relative to a vertical longitudinal plane, wherein the vertical longitudinal plane is parallel to the two spaced apart guides;

two forming assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

a forming flap carried by each jaw and having a respective half-shell forming portion, the forming flaps of each pair of jaws being movable between a withdrawn position in which they do not cooperate with the tube and a forward position in which the respective half-shell forming portions surround the tube in the closed position of the respective jaws to form a cavity of predetermined volume;

a fixed cam;

cam-followers carried by the forming flaps and engageable with respective work profiles of the fixed cam to control approach movement of the forming flaps from the withdrawn position to the forward position;

the work profiles of the fixed cam comprising a first pair of work profiles and a second pair of work profiles, the first and second pairs of work profiles being spaced different distances from the vertical longitudinal plane, with the first pair of work profiles being engageable by the cam followers of two forming flaps of a first type to control the approach movement of the two forming flaps of the first type towards each other and towards the tube and the second pair of work profiles being engageable by the cam followers of two forming flaps of a second type, which differ in size relative to the two forming flaps of the first type, to control the approach movement of the two forming flaps of the second type towards each other and towards the tube.

12. (Previously Presented) A unit as claimed in Claim 11, wherein the first and second work profiles form a top cam of the fixed cam, and wherein the fixed cam also comprises a bottom cam which controls closing movement of the two forming flaps of the first type and the two forming flaps of the second type.

13. (Previously Presented) A unit as claimed in Claim 12, wherein the bottom cam comprises a single pair of work profiles which are engageable by the cam followers of the two forming flaps of the first type and the cam followers of the two forming flaps of the second type.

14. (Previously Presented) A unit as claimed in Claim 11, wherein the fixed cam comprises a plate, and the first and second work profiles are positioned at a top portion of the plate.

15. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

a forming flap carried by each jaw and having a respective half-shell forming portion, the forming flaps of each pair of jaws being movable between a withdrawn position in which they do not cooperate with the tube and a forward position in which the respective half-shell forming portions surround the tube in the closed position of the respective jaws to form a cavity of predetermined volume;

a fixed cam formed as a flat plate;

cam-followers carried by the forming flaps and engageable with respective work profiles of the fixed cam to control approach movement of the forming flaps from the withdrawn position to the forward position;

the work profiles of the fixed cam comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the work profiles forming the first pair of work profiles being spaced apart from one another in a width-

wise direction of the fixed cam, the first pair of work profiles being offset from the second pair of work profiles in a thickness direction of the flat plate forming the fixed cam, with the first pair of work profiles being engageable by the cam followers of two forming flaps of a first type to control the approach movement of the two forming flaps of the first type towards each other and towards the tube and the second pair of work profiles being engageable by the cam followers of two forming flaps of a second type, which differ in size relative to the two forming flaps of the first type, to control the approach movement of the two forming flaps of the second type towards each other and towards the tube.

16. (Previously Presented) A unit as claimed in Claim 15, wherein the first and second work profiles form a top cam of the fixed cam, and wherein the fixed cam also comprises a bottom cam which controls closing movement of the two forming flaps of the first type and the two forming flaps of the second type.

17. (Previously Presented) A unit as claimed in Claim 16, wherein the bottom cam comprises a single pair of work profiles which are engageable by the cam followers of the two forming flaps of the first type and the cam followers of the two forming flaps of the second type.

18. (Previously Presented) A unit as claimed in Claim 15, wherein the first and second work profiles are positioned at a top portion of the plate forming the fixed cam.

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19. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising a fixed structure; and forming means which interact cyclically with the tube of packaging material, and in turn comprise at least two pairs of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material, and respective forming flaps carried by respective the jaws and having respective half-shell forming portions, the forming flaps being movable between a withdrawn position, in which they do not cooperate with the tube, and a forward position, in which the respective half-shell forming portions surround the tube, in the closed position of the relative jaws, to form a cavity of predetermined volume; a pair of fixed cams located on opposite sides of the forming means; and a pair of cam-followers carried by each of the forming flaps and cooperating with the fixed cams to control the approach movement of the forming flaps from the withdrawn position to the forward position; the forming flaps being selectable from a number of types of forming flaps differing in size and for producing respective types of packages; each of the fixed cams comprising a plate possessing a first pair of work profiles engageable by the cam followers of two forming flaps of a first type to control the approach movement of the two forming flaps of the first type towards each other and towards the tube and a different second pair of work profiles engageable by the cam followers of two forming flaps of a second type different from the forming flaps of the first type to control the approach movement of the two forming flaps of the second type towards each other and towards the tube, wherein the plate comprising each fixed cam lies in a first plane, and the first and second pairs of work profiles of each

fixed cam being positioned relative to one another such that a single plane perpendicular to the first plane intersects both the first and second pairs of work profiles.

20. (Previously Presented) A unit as claimed in Claim 19, wherein the first and second work profiles form a top cam of each fixed cam, and wherein each fixed cam also comprises a bottom cam which controls closing movement of the two forming flaps of the first type and the two forming flaps of the second type.

21. (Currently Amended) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming assembly's movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

a forming flap carried by each jaw and having a respective half-shell forming portion, the forming flaps of each pair of jaws being movable between a withdrawn position in which they do not cooperate with the tube and a forward position in which the respective half-shell forming portions surround the tube in the closed position of the respective jaws to form a cavity of predetermined volume;

two cam-follower rollers mounted on each forming flap and spaced apart from one another;

two fixed cams each formed as a flat plate and spaced apart from one another;

the two fixed cams each comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the first pair of work profiles of each fixed cam being spaced apart from one another in a width-wise direction of the fixed cam, the first pair of work profiles of each fixed cam being offset from the second pair of work profiles of the respective fixed cam in a thickness direction of the flat plate forming the respective fixed cam;

the first pair of work profiles of each fixed cam being engageable by one of the cam follower rollers of one of the forming flaps of a first type and one of the cam follower rollers of an other of the forming flaps of the first type to control approach movement of the one forming flap and the other forming flap of the first type towards each other and towards the tube; and

the second pair of work profiles of each fixed cam being engageable by one of the cam follower rollers of one of the forming flaps of a second type and one of the cam follower rollers of an other of the forming flaps of the second type, which differ in size relative to the forming flaps of the first type, to control approach movement of the two forming flaps of the second type towards each other and towards the tube.

22. (New) A form-and-seal unit for producing aseptic sealed packages of a pourable food product from a tube of packaging material filled with the food product and fed along a vertical path, the unit comprising:

two spaced apart guides;

two forming assemblies movable along the spaced apart guides;

each forming assembly comprising a pair of jaws having sealing means for sealing the tube of packaging material and movable between an open position and a closed position in which the sealing means cooperate with the tube of packaging material;

two first forming flaps each adapted to be carried by the jaws of one pair and each having a respective half-shell-forming portion, the two first forming flaps being movable between a withdrawn position in which the two first forming flaps do not cooperate with the tube and a forward position in which the respective half-shell forming portions of the two first forming flaps surround the tube in the closed position of the respective jaws to form a first cavity of a first predetermined volume;

two second forming flaps each adapted to be carried by the jaws of the one pair and each having a respective half-shell-forming portion, the two second forming flaps being movable between a withdrawn position in which the two second forming flaps do not cooperate with the tube and a forward position in which the respective half-shell forming portions of the two second forming flaps surround the tube in the closed position of the respective jaws to form a second cavity of a second predetermined volume;

the two first forming flaps possessing a size different from the size of the two second forming flaps so that the first predetermined volume differs from the second predetermined volume.

two cam-follower rollers mounted on each of the first and second forming flaps and spaced apart from one another;

two fixed cams each formed as a flat plate and spaced apart from one another;

the two fixed cams each comprising a first pair of work profiles and a second pair of work profiles which differ in size from one another, the first pair of work profiles of each fixed cam being spaced apart from one another in a width-wise direction of the fixed cam, the first pair of work profiles of each fixed cam being offset from the second pair of work profiles of the respective fixed cam in a thickness direction of the flat plate forming the respective fixed cam;

the first pair of work profiles of each fixed cam being engageable by one of the cam follower rollers of one of the first forming flaps and one of the cam follower rollers of an other of the first forming flaps to control approach movement of the one first forming flap and the other first forming flap towards each other and towards the tube; and

the second pair of work profiles of each fixed cam being engageable by one of the cam follower rollers of one of the second forming flaps and one of the cam follower rollers of an other of the second forming flaps of the second type to control approach movement of the one second forming flap and the other second forming flap towards each other and towards the tube.

23. (New) A unit as claimed in Claim 22, wherein the two cam-follower rollers mounted on one of the first forming flaps are spaced apart a first distance measured from a central plane of each of the two cam-follower rollers mounted on the one first forming flap, and the two cam-follower rollers mounted on an other of the first forming flaps are spaced apart the first distance measured from a central plane of each of the two cam-follower rollers mounted on the other first forming flap, and wherein the two cam-follower rollers mounted on one of the second forming flaps are spaced apart a second distance measured from a central plane of each of

the two cam-follower rollers mounted on the one second forming flap, and the two cam-follower rollers mounted on an other of the second forming flaps are spaced apart the second distance measured from a central plane of each of the two cam-follower rollers mounted on the other second forming flap, the first distance being different from the second distance.

24. (New) A unit as claimed in Claim 23, wherein the two first forming flaps possess a size smaller than the size of the two second forming flaps, and the first distance is less than the second distance.